

## **ABSTRACT OF THE DISCLOSURE**

An apparatus for fabricating a semiconductor device in which a substance is deposited on a semiconductor wafer. The apparatus includes a heating arrangement and/or a shower head arrangement. The shower head arrangement supplies at least two source gases to the apparatus. The heating arrangement heats at least one of the source gases supplied to a process chamber of the apparatus. The heating arrangement may include a heat pipe including at least one part. A method of reducing thermal disturbance during fabrication of a semiconductor device using the heating arrangement and a method of exchanging heat during fabrication of the semiconductor device using the heating arrangement.